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INTERNATIONAL PRELIMINARY EXAMINATION REPORT
(PCT Article 36 and Rule 70)

11 AUG 2004

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Applicant's or agent's file reference CA010094		FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/GB 03/01616	International filing date (day/month/year) 15.04.2003	Priority date (day/month/year) 29.04.2002	
International Patent Classification (IPC) or both national classification and IPC G06F9/44			
Applicant INTERNATIONAL BUSINESS MACHINES CORPORATION et al.			
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 8 sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of 4 sheets.</p>			
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the opinion</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>			
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**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/GB 03/01616

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1, 6-11 as originally filed
2, 3 received on 03.05.2004 with letter of 29.04.2004

Claims, Numbers

1-10 received on 03.05.2004 with letter of 29.04.2004

Drawings, Sheets

1/1 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☒ the description, pages: 4,5
☒ the claims, Nos.: 11-45
☐ the drawings, sheets:

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5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-10
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	1-10
Industrial applicability (IA)	Yes: Claims	1-10
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Reference is made to the following documents:

D1: Linuxdoc-SGML User's Guide. Matt Welsh, 07-06-1994

D2: GOODALL R M: 'MACROS: A NEGLECTED TECHNIQUE IN ASSEMBLY LANGUAGE PROGRAMMING' MICROPROCESSORS AND MICROSYSTEMS, IPC BUSINESS PRESS LTD. LONDON, GB, vol. 13, no. 7, 1 September 1989 (1989-09-01), pages 437-444, XP000047163 ISSN: 0141-9331

2. Lack of inventive step, Article 33(3) PCT

2.1 While the applicant's observations submitted with the amended claims, as well as with a separate letter have been considered, the previously expressed opinion is nevertheless maintained for the following reasons:

The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 does not involve an inventive step in the sense of Article 33(3) PCT.

The document D1 is regarded as being the closest prior art to the subject-matter of claim 1, and discloses (the references in parentheses applying to this document):

a system for formatting text documents, accepting a set of input definition data in SGML format, the input definition data comprising link definition data and content definition data, the output of the system comprising link definition data and content definition data, said link definition data comprising at least one link referencing content in said content definition data (page 6, section 2.2, lines 28-39. Here, an HTML document is produced from one SGML document (content definition data) containing references (link definition data) to content in the same document. It is understood however, that, although not explicitly disclosed, the system of D1 would likewise produce two HTML files if given two SGML files, containing references from one the other. It is likewise understood that, XML format being a special case of SGML, the teachings of D1 can also be readily applied to XML documents).

The subject-matter of claim 1 therefore differs from this known document D1 in that the at least one link is specified as a pop-up link, and the system is further comprising means for modifying said link specified as a pop-up link in said link definition data to reference pop-up means that would display content definition data referenced by said link in a pop-up window.

The objective technical problem to be solved by the present invention may therefore be regarded as how to substitute a specific reference of one kind by a specific reference of another kind.

More specifically, the objective technical problem solved by the alleged invention over the prior art is how to substitute a specific link in the form of a hyperlink by a link comprising means to cause display of the content referenced by said link in a pop-up window as opposed to displaying the content referenced by said link in the same window. It should be noted that both methods of displaying content referenced by said link are considered part of common general knowledge.

The alleged invention solves said objective technical problem by marking (presumably manually, as it is not explicitly disclosed by the present application) the links to be opened in a pop-up window with a specific prefix in the source SGML or XML file, transforming said source file into a target HTML file, and replacing, in said target file, the marked links with a call to a JavaScript function that opens said links in a pop-up window, and embedding said marked links, less the prefix, as parameters into said function call.

The technical effect thus achieved by the alleged invention is machine substitution of one string of text by another at manually designated locations.

- 2.2 The solution proposed in claim 1 of the present application cannot be considered as involving an inventive step (Article 33(3) PCT) for the following reasons.

The solution proposed by the alleged invention is well-known to have been performed manually before: indeed, it would be within the customary practice of the skilled person to manually replace all desired hyperlinks with calls to a JavaScript function, in order to arrive at the solution of claim 1. Such manual modification of an HTML, or any other, document is considered to be common general knowledge. The alleged invention thus seems to be directed towards the automation of said procedure of substitution. According to the alleged invention,

only a small manual modification - adding a prefix - is required for each link that is to be subsequently opened in a pop-up window (the rest of the substitution is automated), as opposed to a fully manual insertion of the JavaScript function call. Such automation can be considered inventive only if it produces unexpected results or technical effects over prior art, i.e. in this case, manual substitution. However, no such effects or results are present in the case of the alleged invention. The introduction of a prefix to mark a link as a target for a substitution procedure is also considered common general knowledge, as is the method of searching for a specific keyword and replacing each found occurrence with a different keyword. In fact, both have been successfully practised in the field of computing for at least 13 years prior to the priority date of the present application (see, for example, document D2, where such automatic replacement is called a macro. A macro is inserted in the source code and may contain a parameter. The macro assembler then replaces the macro with a predefined text that defines said macro, inserting the parameter into the body of said macro as appropriate. The prefix can therefore be interpreted as a macro and the link itself - as a parameter to said macro. The substitution of a hyperlink for a function call can be thus interpreted as expanding the macro and inserting the hyperlink (parameter of the macro) into the body of the macro). The mere application of such a method to a known information development system also cannot be considered as involving an inventive step.

- 2.3. Regarding the argument put forth by the applicant that "the specific problem mentioned by the Examiner is not correct because the pop-up reference has the same form as the prior art reference. Therefore it is the same kind of reference and not a different reference as suggested. One novel feature as described in the claims is that the link referencing content is specified as a pop-up link but still retains the form of a simple link which references content", it has to be noted that the amended claims as filed by the applicant on 29-04-2004 do not, in fact, disclose that links referencing content are specified as pop-up links, but still retain the form of simple links. It has to be noted however that, if the "links" in question are to be interpreted as the links present in the source SGML or XML files, then this indication is present in the description on page 9, lines 6-20. However, the independent claims of the present application are directed towards the substitution of the pop-up reference in the intermediate HTML files resulting from the conversion of the source SGML or XML files by the development tool, and not towards the manner of specification of a link in said source SGML or XML files, which manner of specification is considered to be subject-matter of a

non-technical nature. The modification (substitution) of the pop-up reference contained in the intermediate HTML file to introduce pop-up means into the resulting HTML file is, however, an act of substitution of one kind of reference (for example, the "A HREF" style link in the intermediate link definition data) for another, different kind of reference (for example, the "onClick="pop_up()" style link in the resulting link definition data). Therefore, the objective technical problem as disclosed in section 2.1 above is maintained unchanged.

2.4 Regarding the argument put forth by the applicant that the advantage of the alleged invention over the prior art is that "the input definition data is backwards compatible with legacy development tools as the link designated as a pop-up link is essentially a prior art link. Therefore if the development tool did not have the functionality to adapt the link then it would remain a regular link and the browser would follow the link to the content as in the prior art", it has to be noted that said argument has not been accepted because the advantage of backwards compatibility has not been disclosed in or even implied by the application as filed. However, even if said argument were accepted, the Search Division disagrees with the statement of backwards compatibility made by it. By way of an example, if the source SGML file contained a definition such as "<L LINKEND="popup_TOC_admin_guide">Administration Guide</L>" that referenced a content page called "TOC_admin_guide", then a prior art development tool not having the functionality to adapt the link would produce a link to a content page called "popup_TOC_admin_guide" and not to "TOC_admin_guide" as intended. Since a page called "popup_TOC_admin_guide" would not exist, the prior art development tool would fail to perform its task. Consequently, in order for an existing development tool to work correctly with the link definition suggested by the present application, said existing development tool would have to be modified, thus ceasing to be a prior art development tool. In other words, no evidence of backwards compatibility is present in the application as filed. Therefore, said argument of alleged advantage of the invention has not been considered in favour of the presence of inventive step in the present application.

2.5 In view of the above, it has been concluded that claim 1 of present application does not meet the requirements of Article 33(3) PCT for lack of inventive step.

3. The same reasoning applies, mutatis mutandis, to the subject-matter of the corresponding independent claim 9, which therefore is also considered not inventive (Article 33(3) PCT).

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/GB 03/01616

4. Dependent claims 2-8 and 10 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of inventive step (Article 33(3) PCT), see documents D1, D2 and the corresponding passages cited in the search report.

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content having a format compatible with the particular interactive help system with which a developer may be working.

It is therefore desirable to have a method and system for developing pop-up windows, where the development and operation of such pop-up windows is not closely tied to a particular computer product, or family of products.

SUMMARY OF THE INVENTION

According to an aspect of the present invention there is provided a system for generating pop-up windows for a computer system, the system comprising implementation means in combination with a development tool, the development tool accepting a set of input definition data having a format selected from SGML or XML, the input definition data comprising link definition data and content definition data, the output of the development tool comprising intermediate link definition data and intermediate content definition data, said intermediate link definition data comprising at least one link referencing content in said intermediate content definition data and said at least one link being specified as a pop-up link, the implementation means comprising: means for modifying the pop-up link in the intermediate link definition data to reference the pop-up means with the content reference; means for modifying the intermediate link definition to include pop-up means for opening a pop-up window to display referenced from the intermediate content definition data.

According to another aspect of the invention there is provided a computer-implemented method for generating pop-up windows for a computer system, the method comprising: accepting a set of definition files having a format selected from a multiplicity of computer mark-up language formats, the definition files including a link definition file and a content definition file; generating content file based on the content definition file, and an intermediate link definition file based on the link definition file, said intermediate link definition file comprising at least one link referencing content in said intermediate content definition file and said at least one link specified as a pop-link link; modifying the intermediate link definition file to include a pop-up method for opening a pop-up window to display referenced content from the intermediate content file; modifying the pop-up link in the intermediate link definition file to reference the op-up method with the content reference.

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Advantages of the present invention include a method and system that permit uniform definition of pop-up windows for display using different browsers. When used in conjunction with a development tool useable for defining documentation and help systems, the invention permits a single set of content definitions to be used to generate different forms of

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CLAIMS

1. A system for generating pop-up windows for a computer system, the system comprising implementation means in combination with a development tool, the development tool accepting a set of input definition data having a format selected from SGML or XML, the input definition data comprising link definition data and content definition data, the output of the development tool comprising intermediate link definition data and intermediate content definition data, said intermediate link definition data comprising at least one link referencing content in said intermediate content definition data and said at least one link being specified as a pop-up link, the implementation means comprising:

means for modifying the pop-up link in the intermediate link definition data to reference the pop-up means with the content reference;

means for modifying the intermediate link definition to include pop-up means for opening a pop-up window to display referenced from the intermediate content definition data.

2. The system of claim 1 wherein the intermediate content definition data is HTML code.

3. The system of claim 1 or 2 wherein the pop-up means is an invocable routine and the referenced content is a parameter for the routine.

4. The system any of claims 1 to 3 wherein the implementation means is implemented within the development tool.

5. The system of any of claims 1 to 4 wherein the input definition data is contained in a set of definition files,

6. The system of any of claims 1 to 5 wherein the link definition data is contained in a link definition file.

7. The system of any of claims 1 to 6 wherein the content definition data is contained in a content definition file.

8. The system of any of claim 1 wherein the pop-up means is a JavaScript function definition, requiring a content op-up means reference as is an identified parameter.

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9. A computer-implemented method for generating pop-up windows for a computer system, the method comprising:

accepting a set of definition files having a format selected from a multiplicity of computer mark-up language formats, the definition files including a link definition file and a content definition file;

generating content file based on the content definition file, and an intermediate link definition file based on the link definition file, said intermediate link definition file comprising at least one link referencing content in said intermediate content definition file and said at least one link specified as a pop-link link;

modifying the intermediate link definition file to include a pop-up method for opening a pop-up window to display referenced content from the intermediate content file;

modifying the pop-up link in the intermediate link definition file to reference the pop-up method with the content reference.

10. The computer-implemented method of claim 9 wherein:

said multiplicity of computer mark-up languages is selectable from an SGML format and an XML format;

said intermediate content file is an HTML content file;

said intermediate link definition file is an HTML file; and

said pop-up method is a JavaScript function definition.

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